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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 4

**Complete if Known**

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|------------------------|---------------------|
| Application Number     | 10/804,822          |
| Filing Date            | March 19, 2004      |
| First Named Inventor   | Lawrence W. STANTON |
| Art Unit               | 1632                |
| Examiner Name          | Shin Lin CHEN       |
| Attorney Docket Number | 135/003             |

**U.S. PATENT DOCUMENTS**

| Examiner<br>Initials | Cite<br>No. | Document Number<br>Number-Kind-Code | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>where relevant passages or<br>relevant figures appear |
|----------------------|-------------|-------------------------------------|--------------------------------|--|---|
| SL                   |             | US 5,256,643                        | 10-26-1993                     | Persico et al.                                     |   |
|                      |             | US 5,264,557                        | 11-23-1993                     | Salomon et al.                                     |   |
|                      |             | US 5,620,866                        | 04-15-1997                     | Salomon et al.                                     |   |
|                      |             | US 5,650,285                        | 07-22-1997                     | Salomon et al.                                     |   |
|                      |             | US 5,654,140                        | 08-05-1997                     | Persico et al.                                     |   |
|                      |             | US 5,856,136                        | 01-05-1999                     | Au-Young   |   |
|                      |             | US 6,090,622                        | 07-18-2000                     | Gearhart et al.                                    |   |
|                      |             | US 6,200,806 B1                     | 03-13-2001                     | Thomson  |   |
|                      |             | US 2002/0146678 A1                  | 10-10-2002                     | Benvenisty   |   |
|                      | +           | US 2003/0224411 A1                  | 12-04-2003                     | Stanton et al.                                     |   |
|                      | +           | US 6,667,176 B1                     | 12-23-2003                     | Funk et al.  |   |
|                      |             | US 2005/0095708 A1                  | 05-05-2005                     | Pera et al.  |   |
| SL                   | +           | US 7,153,650 B2                     | 12-26-2006                     | Stanton et al.                                     |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner<br>Initials | Cite<br>No. | Foreign Patent Document<br>Country Code-Number-Kind-<br>Code | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>where relevant passages<br>or relevant figures<br>appear | T |
|----------------------|-------------|--|-----------------------------------|--|--|---|
| SL                   |             | AU 764684 B  | 05-29-2000                        | ES Cell Intl. Pte. Ltd.                            |  |   |
|                      |             | EP 1 271 145 A1  | 01-02-2003                        | Cardion AG   |  |   |
|                      |             | WO 99/20741 A1   | 04-29-1999                        | Geron Corporation                                  |  |   |
|                      | +1          | WO 00/27995 A1   | 05-18-2000                        | Monash Univ. et al.                                |  |   |
|                      |             | WO 00/46355 A2   | 08-10-2000                        | Geron Corporation                                  |  |   |
|                      |             | WO 01/51610 A1   | 07-19-2001                        | Bresagen Ltd.                                      |  |   |
|                      |             | WO 01/51616 A2   | 07-19-2001                        | Geron Corporation                                  |  |   |
|                      |             | WO 01/81549 A2   | 11-01-2001                        | Geron Corporation                                  |  |   |
|                      |             | WO 01/88104 A2   | 11-22-2001                        | Geron Corporation                                  |  |   |
|                      |             | WO 02/42445 A2   | 05-30-2002                        | Geron Corporation                                  |  |   |
|                      |             | WO 02/42468 A2   | 05-30-2002                        | Geron Corporation                                  |  |   |
|                      | +2          | WO 02/102837 A2  | 12-27-2002                        | Innovationsagentur GmbH                            |  |   |
|                      | +3          | WO 03/004605 A2  | 01-16-2003                        | Geron Corporation                                  |  |   |
|                      |             | WO 03/020920 A1  | 03-13-2003                        | Geron Corporation                                  |  |   |
| SL                   |             | WO 2004/009758 A2  | 01-29-2004                        | Nanodiagnostics, Inc.                              |  |   |

**NON PATENT LITERATURE DOCUMENTS**

|                       |         |                    |        |
|-----------------------|---------|--------------------|--------|
| Examiner<br>Signature | SL Chen | Date<br>Considered | 5-9-07 |
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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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|-------------------|----------|---|-------|
| LM                |          | ABDEL-RAHMAN, B. et al., "Expression of Transcription Regulating Genes in Human Preimplantation Embryos," <i>Molec. Hum. Reprod.</i> 10(10):2787-92 (1995).   |       |
|                   |          | ADAMSON, E. et al., "Cripto: A Tumor Growth Factor and More," <i>J. Cell. Physiol.</i> 190:267-78 (2002).   |       |
|                   | +4       | ADJAYE, J. et al., "Developmental expression of specific genes detected in high-quality cDNA libraries from single human preimplantation embryos," <i>Gene</i> 237:373-83 (1999).   |       |
|                   |          | ADJAYE, J. et al., "cDNA Libraries from Single Human Preimplantation Embryos," <i>Genomics</i> 46:337-44 (1997).  |       |
|                   |          | AMIT, M. et al., "Clonally Derived Human Embryonic Stem Cell Lines Maintain Pluripotency and Proliferative Potential for Prolonged Periods of Culture," <i>Dev. Biol.</i> 227:271-78 (2000).  |       |
|                   |          | CARROLL, R. et al., "Aberrant expression of gastrin-releasing peptide and its receptor by well-differentiated colon cancers in humans," <i>Am. J. Physiol.</i> 276(Gastrointest. Liver Physiol. 39):G655-G665 (1999).   |       |
|                   | +5       | CHENG, L. et al., "Human adult marrow cells support prolonged expansion of human embryonic stem cells in culture," <i>Stem Cells</i> 21(2):131-42 (2003).   |       |
|                   | +6       | DEANS, R. et al., "Mesenchymal stem cells: Biology and potential clinical uses," <i>Exp. Hematol.</i> 28(8):875-84 (2000).  |       |
|                   |          | DRAPER, J. et al., "Surface Antigens of Human Embryonic Stem Cells: Changes Upon Differentiation in Culture," <i>J. Anat.</i> 200:249-58 (2002).  |       |
| LM                |          | EISEN, M. et al., "Cluster Analysis and Display of Genome-Wide Expression Patterns," <i>PNAS</i> 95:14863-68 (1998).  |       |
|                   |          | <del>ES Cell International Internet Listing, Printed Jan 2, 2003.</del>   |       |
| LM                |          | FAN, Y. et al., "Forced Expression of the Homeobox-Containing Gene <i>Pem</i> Blocks Differentiation of Embryonic Stem Cells," <i>Dev. Biol.</i> 210:481-96 (1999).   |       |
|                   |          | FORRESTER, L. et al., "An Induction Gene Trap Screen in Embryonic Stem Cells: Identification of Genes that Respond to Retinoic Acid <i>in Vitro</i> ," <i>PNAS USA</i> 93:1677-82 (1996).   |       |
|                   |          | GAJOVIĆ S. et al., "Genes Expressed After Retinoic Acid-Mediated Differentiation of Embryoid Bodies are Likely to be Expressed During Embryo Development," <i>Exp. Cell Res.</i> 242:138-43 (1998).   |       |
|                   |          | GOSSLER, A. et al., "Mouse Embryonic Stem Cells and Reporter Constructs to Detect Developmentally Regulated Genes," <i>Science</i> 244:463-65 (1989).   |       |
|                   |          | HENDERSON, J. et al., "Preimplantation human embryos and embryonic stem cells show comparable expression of stage-specific embryonic antigens," <i>Stem Cells</i> 20:329-37 (2000).   |       |
|                   |          | HICKS, G. et al., "Functional Genomics in Mice by Tagged Sequence Mutagenesis," <i>Nat. Genet.</i> 16:338-44 (1997).  |       |
|                   |          | HÖLLRIGL, A. et al., "High-Throughput Site-Directed Mutagenesis in ES Cells," <i>Biochem. Biophys. Res. Comm.</i> 289:329-36 (2001).  |       |
| SM                |          | JACKSON, M. et al., "Cloning and Characterization of <i>Ehox</i> , a Novel Homeobox Gene Essential for Embryonic Stem Cell Differentiation," <i>J. Biol. Chem.</i> 277(41):38683-92 (2002).   |       |

Examiner  
Signature

S. Chen

Date  
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|  |   |                          |                     |
|--|---|--------------------------|---------------------|
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|---------------------------------|----------|---|-------|
| Examiner Initials               | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Trans |
| LM                              |          | KELLY, D. et al., "DNA Microarray Analyses of Genes Regulated During the Differentiation of Embryonic Stem Cells," <i>Mol. Reprod. Dev.</i> 56:113-23 (2000).   |       |
|                                 |          | KRUGLYAK, L. & NICKERSON, D., "Variation is the spice of life," <i>Nature Genet.</i> 27:234-36 (2001).  |       |
|                                 |          | LAWINGER, P. et al., "Lack of Enhancer Function in Mammals is Unique to Oocytes and Fertilized Eggs," <i>J. Biol. Chem.</i> 274(12):8002-11 (1999).   |       |
|                                 |          | LEAHY, A. et al., "Use of developmental marker genes to define temporal and spatial patterns of differentiation during embryoid body formation," <i>J. Exp. Zoology</i> 284:67-81 (1999).   |       |
|                                 |          | LEBKOWSKI, J. et al., "Human Embryonic Stem Cells: Culture, Differentiation, and Genetic Modification for Regenerative Medicine Applications," <i>Cancer J.</i> 7(Suppl 2):S83-S93 (2001).  |       |
|                                 |          | LORING, J. et al., "A Gene Expression Profile of Embryonic Stem Cells and Embryonic Stem Cell-Derived Neurons," <i>Restor. Neurol. Neurosci.</i> 18:81-88 (2001).   |       |
|                                 |          | MAEDA, K. et al., "Analysis of an expression profile of genes in the human adipose tissue," <i>Gene</i> 190:227-35 (1997).  |       |
|                                 |          | MONK, M. & HOLDING, C., "Human Embryonic Genes Re-Expressed in Cancer Cells," <i>Oncogene</i> 20:8085-91 (2001).  |       |
|                                 |          | MONK, M. et al., "Isolation of Novel Developmental Genes from Human Germ Cell, Oocyte and Embryo cDNA by Differential Display," <i>Reprod. Fertil. Dev.</i> 13:51-57 (2001).  |       |
|                                 |          | NATALE, D. et al., "Sensitivity of Bovine Blastocyst Gene Expression Patterns to Culture Environments Assessed by Differential Display RT-PCR," <i>Reprod.</i> 122:687-93 (2001).   |       |
|                                 |          | NISHIGUCHI, S. et al., "A Catalogue of Genes in Mouse Embryonal Carcinoma F9 Cells Identified with Expressed Sequence Tags," <i>J. Biochem.</i> 119(4):749-67 (1996).   |       |
|                                 |          | PESCE, M. et al., "In Line with Our Ancestors: <i>Oct-4</i> and the Mammalian <i>Germ</i> ," <i>BioEssays</i> 20:722-32 (1998).   |       |
|                                 |          | PRELLE, K. et al., "Pluripotent Stem Cells – Model of Embryonic Development, Tool for Gene Targeting, and Basis of Cell Therapy," <i>Anat. Histol. Embryol.</i> 31:169-86 (2002).   |       |
|                                 |          | RAMALHO-SANTOS, M. et al., "'Stemness': Transcriptional Profiling of Embryonic and Adult Stem Cells," <i>Science</i> 298:597-600 (2002).  |       |
|                                 | +7       | RICHARDS, M. et al., "Human feeders support prolonged undifferentiated growth of human inner cell masses and embryonic stem cells," <i>Nature Biotech.</i> 20(9):933-36 (2002).   |       |
|                                 |          | ROSSANT, J. & SPENCE, A., "Chimeras and Mosaics in Mouse Mutant Analysis," <i>Trends Genet.</i> 14(9):358-63 (1998).  |       |
|                                 |          | SAITOU, M. et al., "A Molecular Programme for the Specification of Germ Cell Fate in Mice," <i>Nature</i> 418:293-300 (2002).   |       |
|                                 |          | SASAKI, N. et al., "Characterization of Gene Expression in Mouse Blastocyst Using Single-Pass Sequencing of 3995 Clones," <i>Genomics</i> 49:167-79 (1998).   |       |
| SL                              |          | SCHOPPERLE, W. et al., "Human Embryonal Carcinoma Tumor Antigen, Gp200/GCTM-2, is Podocalyxin," <i>Biochem. Biophys. Res. Commun.</i> 300:285-90 (2003).  |       |

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| GL                              |          | SHAMBLOTT, M. et al., "Derivation of Pluripotent Stem Cells from Cultured Human Primordial Germ Cells," <i>PNAS</i> 95:13726-31 (1998).   |       |
| GL                              |          | STANFORD, W. et al., "Expression Trapping: Identification of Novel Genes Expressed in Hematopoietic and Endothelial Lineages by Gene Trapping in ES Cells," <i>Blood</i> 92(12):4622-31 (1998).   |       |
|                                 |          | <del>Stem Cell Array Information, Printed from SuperArray Website (June 17, 2003).</del>  |       |
| GL                              |          | TANAKA, T. et al., "Gene Expression Profiling of Embryo-Derived Stem Cells Reveals Candidate Genes Associated with Pluripotency and Lineage Specificity," <i>Genome Res.</i> 12:1921-28 (2002).   |       |
|                                 |          | THOMSON, J. et al., "Embryonic Stem Cell Lines Derived from Human Blastocysts," <i>Science</i> 282:1145-47 (1998).  |       |
|                                 |          | WOLTJEN, K. et al., "Retro-Recombination Screening of a Mouse Embryonic Stem Cell Genomic Library," <i>Nucl. Acids Res.</i> 28(9):E411-vii (2000).  |       |
|                                 |          | XIONG, J. et al., "Large-Scale Screening for Developmental Genes in Embryonic Stem Cells and Embryoid Bodies Using Retroviral Entrapment Vectors," <i>Dev. Dyn.</i> 212:181-97 (1998).  |       |
|                                 |          | XU, C. et al., "Feeder-Free Growth of Undifferentiated Human Embryonic Stem Cells," <i>Nature Biotech.</i> 19(10):971-74 (2001).  |       |
|                                 |          | ZAMBROWICZ, B. et al., "Disruption and Sequence Identification of 2,000 Genes in Mouse Embryonic Stem Cells," <i>Nature</i> 392:608-11 (1998).  |       |
|                                 |          | ZHANG, P. et al., "Towards Genetic Genome Projects: Genomic Library Screening and Gene-Targeting Vector Construction in a Single Step," <i>Nat. Genet.</i> 30:31-39 (2002).   |       |
| GL                              |          | zur NIEDEN, N. et al., "Molecular Markers in Embryonic Stem Cells," <i>Toxicol. in Vitro</i> 15:455-61 (2001).  |       |

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